## **CLAIMS**

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- 1. Metallic conductor that comprises a collected assembly of wires (22), characterized in that conductor (21) assumes a predetermined polygonal cross-section.
- 2. Conductor according to Claim 1, in which the polygonal cross-section has at least one straight side.
- 10 3. Conductor according to Claim 1, in which the polygonal cross-section has at least one curved side.
  - 4. Conductor according to any one of Claims 2 to 3, in which the polygonal cross-section has a combination of at least one straight side and one curved side.
  - 5. Conductor according to Claim 4, in which the polygonal cross-section is a circular sector.
- 6. Conductor according to any one of the preceding claims, in which the diameter of each wire (22) is less than or equal to 0.61 mm.
  - 7. Conductor according to any one of the preceding claims, in which the conductor (21) is surrounded by a layer of an insulating material.
- 8. Conductor according to Claim 7, in which the layer of insulating material is thermoplastic and/or thermosetting, such as polyethylene, polyester, fluorinated polymer, polyolefin, polyamide, polyimide, polyurethane, polyvinyl chloride, thermoplastic elastomer, ethylene-propylene, polychloroprene or silicone rubber, as well as their compounds and derivatives.
  - 9. Cable that comprises a plurality of conductors (21) according to Claim 1, electrically insulated from one another, and in their turn grouped together by a cabling process under a covering or a common binding element, characterized in that the conductors (21) assume a predetermined polygonal arrangement.
  - 10. Cable according to Claim 9, in which the predetermined polygonal arrangement includes at least one straight side.

WO 2004/086417 PCT/EP2004/002512

-6-

- 11. Cable according to Claim 9, in which the predetermined polygonal arrangement includes at least one curved side.
- 12. Cable according to any one of Claims 10 to 11, in which the predetermined
  5 polygonal arrangement includes a combination of at least one straight side and one curved side.
  - 13. Cable according to Claim 9, in which the predetermined polygonal arrangement is a circle.
  - 14. Cable according to Claim 9, in which the predetermined polygonal arrangement is a rectangle.

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- 15. Cable according to any one of Claims 13 to 14, in which the cable (23) comprises conductors (21) of different polygonal cross-sections.
  - 16. Cable according to Claim 9, in which the predetermined polygonal arrangement is surrounded by at least one layer of a protective material.
- 20 17. Cable according to Claim 16, in which the layer of protective material is a metallic protective material.
  - 18. Cable according to Claim 16, in which the layer of protective material is a thermoplastic and/or thermosetting polymeric protective material.
  - 19. Cable according to Claim 16, in which the layer of protective material is a textile material applied in the form of a protective belt.
- 20. Cable according to any one of the Claims 17 to 19, in which the predetermined polygonal arrangement is surrounded by a combination of layers of protective material.
  - 21. Method of manufacture of a metallic conductor (21) according to Claim 1, characterized in that the method comprises at least the stages of:
  - Deformation, using a mechanical means of deformation, of a metallic conductor (21) that comprises an assembly of round metallic wires (22) for achieving the predetermined polygonal cross-section, and

WO 2004/086417

-7-

• Extrusion, using an extrusion means, of the metallic conductor (21) obtained in the preceding operation.